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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,513	12/26/2001	Dana J. Taipale	SC11600TS/10-44	8650
51894	7590	04/01/2005	EXAMINER	
LAW OFFICE OF CHARLES W. BETHARDS, LLP			TORRES, JUAN A	
P.O. BOX 1622			ART UNIT	
COLLEYVILLE, TX 76034			PAPER NUMBER	
			2631	

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/033,513

Applicant(s)

TAIPALE ET AL.

Examiner

Juan A. Torres

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2 and 4-19 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method of processing samples for delay locked loop processing, comprising interpolating between received samples to generate time shifted samples; extracting ontime control symbol samples from one of the received samples and the time shifted samples; extracting first non-ontime control symbol samples from one of the received samples and the time shifted samples; and subsequently extracting second non-ontime symbol samples based on the first non-ontime control symbol samples and the ontime control symbol samples, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because:

a) The recitation "CDMA" in line 1 of the abstract is suggested to be changed to "Code Division Multiple Access (CDMA)"

b) The recitation "DLL" in line 11 of the abstract is suggested to be changed to "Delay Locked Loop (DLL)"

Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

a) In page 1 line 13 the recitation "CDMA" is suggested to be changed to "Code Division Multiple Access (CDMA)".

b) In page 2 line 7 the recitation "DSP" is suggested to be changed to "Digital Signal Processor (DSP)".

c) In page 4 line 15 the recitation "I/O" is suggested to be changed to "Input/Output (I/O)".

d) In page 9 line 19 the recitation "ASIC" is suggested to be changed to "Application-Specific Integrated Circuit (ASIC)".

Appropriate correction is required.

Claim Objections

Claim 3 objected to because of the following informalities: in line 2 of claim 3 the recitation "ASIC" is indefinite; it is suggested to be changed to "Application-Specific Integrated Circuit (ASIC)". Appropriate correction is required.

Allowable Subject Matter

Claims 1-19 are allowed over prior art (if the above objections are overcome).

The following is an examiner's statement of reasons for allowance: claims 1-19 are allowed because the references cited fail to teach, as applicant has, a second non-ontime symbol samples based on the first non-ontime control symbol samples and the ontime control symbol samples, as the applicant has claimed.

Conclusion

This application is in condition for allowance except for the following formal matters:

See above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. El-Tarhuni (US 6201828) discloses a spread-spectrum radio communication system in which transmissions occur with varying amounts of delay and in which the delay of a received signal must be determined in order to despread the signal, a system for refining the initial estimate of delay and for tracking the delay during an ongoing communication by correlating the signal at the estimated delay, an increment earlier than the estimated delay, and the same increment later than the estimated delay, and interpolating the early and late correlations normalized by the correlation at the estimated delay and by the increment to determine a refined estimate of the delay. Baltersee (US Patent Publication 20020037028) discloses a method and a rake receiver for code-tracking in communication systems in general and in code division multiple access (CDMA) communication systems being subject to multipath fading. Ali (US Patent Publication 20020080862) discloses a Rake receiver suitable for receiving, for example, direct sequence CDMA signals, in which the pilot code used to correlate the received signal in each Rake finger is interpolated prior to the correlation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres
3-14-2005



STEPHEN CHIN
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